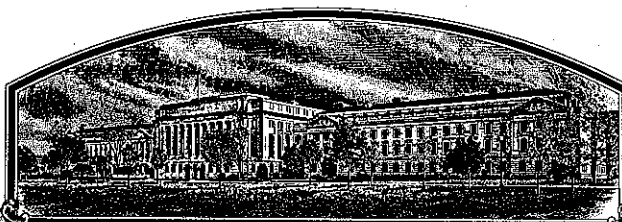


No.

9400020



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

The University of Georgia Research Foundation, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED, PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE FOREGOING PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'HY 798'



Attest:

Martha A. Stinson

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this thirty-first day of October in the year of our Lord one thousand nine hundred and ninety-five.

Philip H. H. H. H.
Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions on reverse)

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) (as it is to appear on the Certificate)		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NO.	3. VARIETY NAME
The University of Georgia Research Foundation, Inc.		G84-234	HY 798
4. ADDRESS (street and no. or R.F.D. no., city, state, and ZIP)		5. PHONE (include area code)	FOR OFFICIAL USE ONLY PVPO NUMBER 9400020 F I L I N G Date Nov. 10, 1993 Time 10:45 <input checked="" type="checkbox"/> A.M. <input type="checkbox"/> P.M. F E E S Filing and Examination Fee: \$ 2325.00 Date Oct. 29, 1993 R E C E I V E D Certificate Fee: \$ 300.00 Date Sept. 5, 1995
Boyd Graduate Studies Research Center University of Georgia Athens, GA 30602-7411		(706) 542-6512	
6. GENUS AND SPECIES NAME	7. FAMILY NAME (Botanical)		
Glycine max	Leguminosae		
8. CROP KIND NAME (Common Name)		9. DATE OF DETERMINATION	
Soybean		1984	
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.)			
Corporation			
11. IF INCORPORATED, GIVE STATE OF INCORPORATION		12. DATE OF INCORPORATION	
Georgia		17 Nov 1978	
13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS			
Dr. Janice A. Kimpel Vice-President Office for Research Boyd Graduate Studies Research Center University of Georgia Athens, GA 30602-7411			
		PHONE (include area code): (706) 542-5929	
14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow INSTRUCTIONS on reverse)			
a. <input checked="" type="checkbox"/> Exhibit A, Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B, Novelty Statement. c. <input checked="" type="checkbox"/> Exhibit C, Objective Description of Variety. d. <input type="checkbox"/> Exhibit D, Additional Description of Variety. e. <input checked="" type="checkbox"/> Exhibit E, Statement of the Basis of Applicant's Ownership. f. <input checked="" type="checkbox"/> Seed Sample (2,500 viable untreated seeds). Date Seed Sample mailed to Plant Variety Protection Office <u>10/26/93</u> g. <input checked="" type="checkbox"/> Filing and Examination Fee, (2,325) made payable to "Treasurer of the United States."			
15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See section 83(a) of the Plant Variety Protection Act.)			
<input type="checkbox"/> YES (If "YES," answer items 16 and 17 below) <input checked="" type="checkbox"/> NO (If "NO," ship to item 18 below)			
16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?		17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?	
<input type="checkbox"/> YES <input type="checkbox"/> NO		<input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED	
18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.?			
<input type="checkbox"/> YES (If "YES," through <input type="checkbox"/> Plant Variety Protection Act <input type="checkbox"/> Patent Act Give date _____) <input type="checkbox"/> NO			
19. HAS THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETING IN THE U.S. OR OTHER COUNTRIES?			
<input type="checkbox"/> YES (If "YES," give names of countries and dates) <input checked="" type="checkbox"/> NO			
20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.			
The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in section 41, and is entitled to protection under the provisions of section 42 of the Plant Variety Protection Act.			
Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.			
SIGNATURE OF APPLICANT (Owner(s))		CAPACITY OR TITLE	DATE
Joe L. Key		Executive Vice President	10-22-93
SIGNATURE OF APPLICANT (Owner(s))		CAPACITY OR TITLE	DATE

EXHIBIT A
UNIVERSITY OF GEORGIA RESEARCH FOUNDATION APPLICATION FOR HY 798
ORIGIN AND BREEDING HISTORY

1981	Cross of 'Kirby' x 'Wright' made in Athens, GA
1981-82	F ₁ grown during the winter at Isabela, Puerto Rico
1982	F ₂ was grown in Athens, GA
1982-83	F ₃ and F ₄ generations were advanced in the winter at Isabela, Puerto Rico
1983	F ₅ was grown in Athens, GA
1983-84	F _{5.6} lines were screened for resistance to race 3 of soybean cyst nematode in the greenhouse during the winter
1984	F _{5.6} plant rows were grown in Athens, GA. Plant row #84-234 was selected and composited after it was determined to be stable and true breeding for major characteristics.
1985	Tested as G84-234 in Athens, GA in 2 reps
1986	Tested at Athens and Plains, GA in 2 reps/ location
1987	Tested at Athens, Plains, and Griffin, GA in 3 reps/location
1988	Entered in USDA Uniform Preliminary Test VIII grown at 6 locations (2 reps/location). Evaluated at Athens, GA in 3 replications on soybean cyst nematode race 3 infested soil.
1989	Evaluated in USDA Uniform Regional Test VIII at 15 locations (3 reps/location). Grown at 2 soybean cyst nematode race 3 infested locations (3 reps/location) at Athens and Midville, GA.
1990	Evaluated in USDA Uniform Regional Test VIII at 14 locations (3 reps/location). Grown at Midville, GA (3 reps) on soybean cyst nematode race 3 infested soil. Grown at 9 locations (3 reps/location) in the Georgia Variety Trials.
1991	Evaluated in USDA Uniform Regional Test VIII at 16 locations (3 reps/location). Grown at 11 locations (3 reps/location) in the Georgia Variety Trials.
1992	Evaluated at 11 locations (3 reps/location) in the Georgia Variety Trials.
1993	Released as HY 798

EXHIBIT B
UNIVERSITY OF GEORGIA RESEARCH FOUNDATION APPLICATION FOR HY 798
NOVELTY STATEMENT

To our knowledge HY 798 most nearly resembles Cook, Maxcy, Coker 6738, and Perrin. Differences include but are not limited to the following:

1. Peanut root-knot nematode - HY 798 differs from Cook, Maxcy, and Coker 6738 in that it is resistant to peanut root-knot nematode whereas Cook, Maxcy, and Coker 6738 are susceptible.

	Peanut root-knot rating +		
	1989	1990	1991
HY 798	1.8	1.9	1.2
Cook	2.5	3.1	4.0
Maxcy	3.2	5.0	4.2
Coker 6738	3.1	4.0	---
Perrin	---	---	2.5
LSD (0.05)	1.1	1.1	1.2
No. of tests	1	1	1
No. of reps	4	4	4

+Rating: 1 = few galls to 5 = many galls

2. Race 3 of soybean cyst nematode - HY 798 is resistant to race 3 of soybean cyst nematode whereas Cook and Perrin are susceptible.

	Race 3 Soybean cyst reaction ‡		
	1989	1990	1991
HY 798	R	R	R
Cook	S	S	S
Maxcy	R	R	R
Coker 6738	R	R	-
Perrin	-	-	S
LSD (0.05)	-	-	-
No. of tests	1	1	1
No. of reps	7	7	7

‡Reaction: R = resistant and S = susceptible.

3. Leaf shape - HY 798 has oval leaf shape whereas Cook, Maxcy, Coker 6738, and Perrin have ovate leaf shape.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MARYLAND 20705

FORM REVISED: UMB NO. 0681-0056

EXHIBIT C
(Soybean)

OBJECTIVE DESCRIPTION OF VARIETY
SOYBEAN (*Glycine max* L.)

NAME OF APPLICANT(S) The University of Georgia Research Foundation, Inc.	TEMPORARY DESIGNATION G84-234	VARIETY NAME HY 798
ADDRESS (Street and No., or R.F.D. No., City, State, and Zip Code) Boyd Graduate Studies Research Center University of Georgia Athens, GA 30602-7411		FOR OFFICIAL USE ONLY PVPO NUMBER 9400020

Choose the appropriate response which characterizes the variety in the features described below. When the number of significant digits in your answer is fewer than the number of boxes provided, place a zero in the first box when number is 9 or less (e.g.,). Starred characters ★ are considered fundamental to an adequate soybean variety description. Other characters should be described when information is available.

1. SEED SHAPE:



1 = Spherical (L/W, L/T, and T/W ratios = < 1.2)

3 = Elongate (L/T ratio > 1.2; T/W = < 1.2)

2 = Spherical Flattened (L/W ratio > 1.2; L/T ratio = < 1.2)

4 = Elongate Flattened (L/T ratio > 1.2; T/W > 1.2)

★ 2. SEED COAT COLOR: (Mature Seed)

1 = Yellow

2 = Green

3 = Brown

4 = Black

5 = Other (Specify) _____

3. SEED COAT LUSTER: (Mature Hand Shelled Seed)

1 = Dull ('Consoy 79'; 'Braxton')

2 = Shiny ('Nebsoy'; 'Gasoy 17')

★ 4. SEED SIZE: (Mature Seed)

Grams per 100 seeds

★ 5. HILUM COLOR: (Mature Seed)

1 = Buff

2 = Yellow

3 = Brown

4 = Gray

5 = Imperfect Black

6 = Black

7 = Other (Specify) _____

★ 6. COTYLEDON COLOR: (Mature Seed)

1 = Yellow

2 = Green

★ 7. SEED PROTEIN PEROXIDASE ACTIVITY:

1 = Low

2 = High

★ 8. SEED PROTEIN ELECTROPHORETIC BAND:

1 = Type A (SP1^a)

2 = Type B (SP1^b)

★ 9. HYPOCOTYL COLOR:

1 = Green only ('Evans'; 'Davis')

2 = Green with bronze band below cotyledons ('Woodworth'; 'Tracy')

3 = Light Purple below cotyledons ('Beeson'; 'Pickett 71')

4 = Dark Purple extending to unifoliate leaves ('Hodgson'; 'Coker Hampton 266A')

★ 10. LEAFLET SHAPE:

1 = Lanceolate

2 = Oval

3 = Ovate

4 = Other (Specify) _____

4

11. LEAFLET SIZE:

☒ 21 = Small ('Amsoy 71'; 'AS312')
3 = Large ('Crawford'; 'Tracy')

2 = Medium ('Corsoy 79'; 'Gasoy 17')

12. LEAF COLOR:

☒ 21 = Light Green ('Weber'; 'York')
3 = Dark Green ('Gnome'; 'Tracy')

2 = Medium Green ('Corsoy 79'; 'Braxton')

★ 13. FLOWER COLOR:

☒ 2

1 = White

2 = Purple

3 = White with purple throat

★ 14. POD COLOR:

☒ 1

1 = Tan

2 = Brown

3 = Black

★ 15. PLANT PUBESCENCE COLOR:

☒ 2

1 = Gray

2 = Brown (Tawny)

16. PLANT TYPES:

☒ 21 = Slender ('Essex'; 'Amsoy 71')
3 = Bushy ('Gnome'; 'Govan')

2 = Intermediate ('Amcor'; 'Braxton')

★ 17. PLANT HABIT:

☒ 1

1 = Determinate ('Gnome'; 'Braxton')

2 = Semi-Determinate ('Will')

3 = Indeterminate ('Nebsoy'; 'Improved Pelican')

★ 18. MATURITY GROUP:

☒ 1 ☒ 11 = 000
9 = VI2 = 00
10 = VII3 = 0
11 = VIII4 = I
12 = IX5 = II
13 = X

6 = III

7 = IV

8 = V

★ 19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

BACTERIAL DISEASES:

★ ☒ 2Bacterial Pustule (*Xanthomonas phaseoli* var. *sojensis*)★ ☐ 0Bacterial Blight (*Pseudomonas glycines*)★ ☐ 0Wildfire (*Pseudomonas tabaci*)

FUNGAL DISEASES:

★ ☐ 0Brown Spot (*Septoria glycines*)Frogeye Leaf Spot (*Cercospora sojina*)★ ☐ 0

Race 1

☐ 0 Race 2☐ 0 Race 3☐ 0 Race 4☐ 0 Race 5☐ Other (Specify)☐ 0Target Spot (*Corynespora cassiicola*)☐ 0Downy Mildew (*Peronospora trifoliorum* var. *manshurica*)☒ 2Powdery Mildew (*Microsphaera diffusa*)★ ☐ 0Brown Stem Rot (*Cephalosporium gregatum*)☒ 2Stem Canker (*Diaporthe phaseolorum* var. *caulivora*)

19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant) (Continued)

FUNGAL DISEASES: (Continued)

- ★ Pod and Stem Blight (*Diaporthe phaseolorum* var. *sojae*)
- Purple Seed Stain (*Cercospora kikuchii*)
- Rhizoctonia Root Rot (*Rhizoctonia solani*)
- Phytophthora Rot (*Phytophthora megasperma* var. *sojae*)
- ★ Race 1 Race 2 Race 3 Race 4 Race 5 Race 6 Race 7
- Race 8 Race 9 Other (Specify) _____

VIRAL DISEASES:

- Bud Blight (Tobacco Ringspot Virus)
- Yellow Mosaic (Bean Yellow Mosaic Virus)
- ★ Cowpea Mosaic (Cowpea Chlorotic Virus)
- Pod Mottle (Bean Pod Mottle Virus)
- ★ Seed Mottle (Soybean Mosaic Virus)

NEMATODE DISEASES:

- Soybean Cyst Nematode (*Heterodera glycines*)
- ★ Race 1 Race 2 Race 3 Race 4 Other (Specify) Race 14, Race 9
- Lance Nematode (*Hoplolaimus Colonus*)
- ★ Southern Root Knot Nematode (*Meloidogyne incognita*)
- ★ Northern Root Knot Nematode (*Meloidogyne Hapla*)
- Peanut Root Knot Nematode (*Meloidogyne arenaria*)
- Reniform Nematode (*Rotylenchulus reniformis*)
- OTHER DISEASE NOT ON FORM (Specify): Javanese Root-Knot Nematode

20. PHYSIOLOGICAL RESPONSES: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

- ★ Iron Chlorosis on Calcareous Soil
- Other (Specify) _____

21. INSECT REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

- Mexican Bean Beetle (*Epilachna varivestis*)
- Potato Leaf Hopper (*Empoasca fabae*)
- Other (Specify) _____

22. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant Shape	Coker 6738	Seed Coat Luster	Perrin
Leaf Shape	Tracy	Seed Size	Coker 6738
Leaf Color	Cook	Seed Shape	Perrin
Leaf Size	Coker 6738	Seedling Pigmentation	Cook

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21. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD VARIETY: Paired Comparison Data

VARIETY	NO. OF DAYS MATURITY	PLANT LODGING SCORE	CM PLANT HEIGHT	LEAFLET SIZE		SEED CONTENT		SEED SIZE G/100 SEEDS	NO. SEEDS/POD
				CM Width	CM Length	% Protein	% Oil		
HY 798 Submitted	158	2.0	84	—	—	42.0	20.0	14.0	—
Coker 6738 Name of Similar Variety	159	2.2	91	—	—	40.4	21.0	13.3	—

PUBLICATIONS USEFUL AS REFERENCE AIDS FOR COMPLETING THIS FORM:

1. Caldwell, B.E., ed. 1973. Soybeans: Improvement, Production, and Uses. Amer. Soc. Agron. Monograph No. 16.
2. Buttery, B.F. and R.J. Buzzell. 1968. Peroxidase activity in seeds of soybean varieties. Crop Sci., 8: 722-725.
3. Hymowitz, T. 1973. Electrophoretic analysis of SBTI-A₂ in the USDA soybean germplasm collection. Crop Sci., 13: 420-421.
4. Payne, R.C. and L.F. Morris. 1976. Differentiation of soybean cultivars by seedling pigmentation patterns. J. Seed Technol. 1: 1-19.

EXHIBIT E
THE UNIVERSITY OF GEORGIA RESEARCH FOUNDATION
STATEMENT OF APPLICANT'S OWNERSHIP

The variety for which plant variety protection is hereby sought was developed by H. Roger Boerma, E. Dale Wood, Richard S. Hussey, and Daniel V. Phillips, employees at the University of Georgia Agricultural Experiment Station. The Georgia Agricultural Experiment Station is a part of The University of Georgia. The University of Georgia is one of the universities of the University System of Georgia. The Board of Regents of the University System of Georgia ("Board of Regents") is a body that was created by the Constitution of the State of Georgia and is charged with the responsibility of operating the Universities in The University System of Georgia. The University of Georgia Research Foundation, Inc. is a Georgia nonprofit corporation which was incorporated to, among other things, own and exploit intellectual property developed or created at The University of Georgia. On June 9, 1982 the Board of Regents approved a Patent Policy regarding inventions and discoveries by persons employed at The University of Georgia. As an employee at the Georgia Agricultural Experiment Station, H. Roger Boerma, E. Dale Wood, Richard S. Hussey, and Daniel V. Phillips are subject to said Patent Policy. Rights in novel plant varieties developed at The University of Georgia, including HY 798, are covered by said Patent Policy. By agreement, the Board of Regents assigned to the University of Georgia Research Foundation, Inc. all rights in intellectual property covered by said Patent Policy. This agreement applies to then existing intellectual property and to intellectual property which was developed thereafter.

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